



## PATENT ABSTRACTS OF JAPAN

(11) Publication number: **11022924 A**(43) Date of publication of application: **26.01.99**

(51) Int. Cl.

**F23D 14/18**(21) Application number: **09177095**(22) Date of filing: **02.07.97**(71) Applicant: **MATSUSHITA ELECTRIC IND CO LTD**(72) Inventor: **KAWASAKI YOSHITAKA  
SUZUKI MOTOHIRO  
TERAJIMA TETSUO  
TAGUCHI KIYOSHI**(54) **CATALYSTIC COMBUSTION DEVICE**(57) **Abstract**

**PROBLEM TO BE SOLVED:** To maintain the activity of a catalyst body to secure complete combustion and obtain stabilized and clean exhaust gas by a method wherein a heat retaining body, having a multitude of communicating holes, is provided in the upstream side or the downstream side of the catalyst body, installed in the passage of mixed air stream of air and fuel.

**SOLUTION:** Fuel from a fuel supplying pipe 1 is discharged by the opening of a control valve 2 and air is mixed in a mixing vessel 3 to supply the mixture into a combustion chamber 4. Upon the initial period of combustion, the mixture is ignited by an igniter 7 at the downstream side of a catalyst body 6 through the communicating hole of the heat retaining body 5 and the catalyst body 6 whereby flame combustion is effected. The temperature of the catalyst body 6, heated by the flame of the combustion, is raised and catalyst combustion is started here. The upstream side is heated by the combustion heat and the heating is repeated whereby the upstream side is contacted with the heat retaining body 5. Radiation heat, generated from the upstream surface of the catalyst body 6, is received once by the heat retaining body 5 because of the existence of the heat retaining body 5 whereby the

temperature of the heat retaining body 5 is raised and the temperature of the catalyst body 6 is also raised. Accordingly, stabilized complete combustion can be secured even when the flow rate of mixture is changed.

COPYRIGHT: (C)1999,JPO

